

## **REMARKS**

Applicants thank the Examiner for the Office Action of January 29, 2008. This Amendment is in full response thereto. Thus, Applicants respectfully request continued examination and allowance of the application.

### **Claim Rejections Under 35 U.S.C. § 101:**

Claim 18 stands rejected under 35 U.S.C. § 101 as unpatentable. Applicants have canceled claim 18 thereby mooting the rejection.

### **Claim Rejections Under 35 U.S.C. § 112:**

Claim 18 stands rejected under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph as unpatentable. Applicants have canceled claim 18 thereby mooting the rejection.

### **Claim Rejections Under 35 U.S.C. § 103:**

Claims 10 and 12-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,913,893 (Gary et al.) in view of the original patent figure and Derwent Abstract of Russian Patent SU 403926A (Lozhkin et al.). Applicants respectfully traverse for either of the following two reasons. First, Gary et al. and Lozhkin et al. fail to disclose, teach, or suggest all of the limitations of the claimed subject matter. Second, modification of the Gary et al. disclosure with the branch of Lozhkin et al. would not have resulted in the claimed subject matter.

With respect to reason one, Gary et al. and Lozhkin et al. fail to explicitly disclose, teach, or suggest all of the limitations of the claimed subject matter and the Examiner fails to show how or why such references implicitly disclose, teach, or suggest the same.

In the Office Action, the Examiner states that:

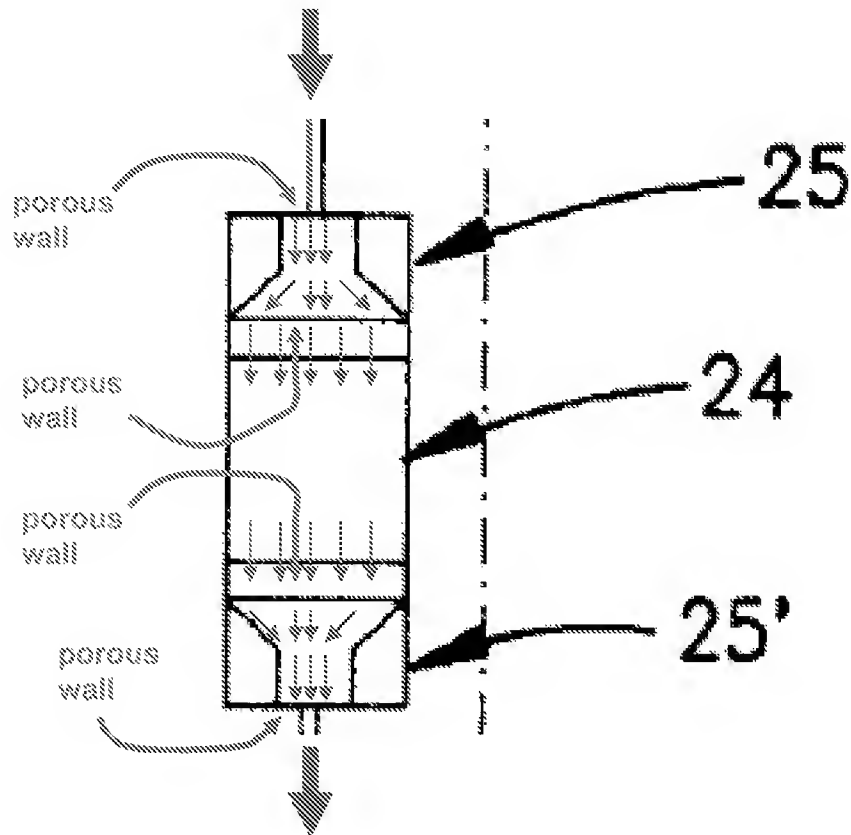
- Gary et al. discloses the subject matter of claims 10, 11-14 and 16-16 except for placement in a branch and that the branch be at a 10° to 30° angle to the pipe, and
- it would have been obvious to have placed the Gary et al. filter in a branch and that the branch be at a 10° to 30° angle to the pipe as taught by Lozhkin et al.

Applicants assumes that the branch that the Examiner admits as lacking in the Gary et al. disclose is a branch extending parallel to a flow axis (Y-Y') between the upstream portion and a free end, wherein the branch contains at least part of a filtration member) and a thermal insulation member which is mounted so as to bear, on one hand, on a closed-off end of the filtration member and, on the other hand, on the free end of the branch. Applicants kindly ask the Examiner to confirm this assumption. Otherwise, Applicants understand the Examiner to take the position that the rest of the limitations of the claimed subject matter are disclosed by Gary et al.

Operating under the above assumption, Applicants respectfully assert that Gary et al. actually does not disclose all of the "non-branch" limitations of the claimed subject matter, particularly:

- at least one duct formed in a filtration member that extends along a flow axis between an open end and a **closed-off end**, and
- the downstream portion of the liquid flow pipe emerges opposite at least one region of a porous wall at least partially defining the duct.

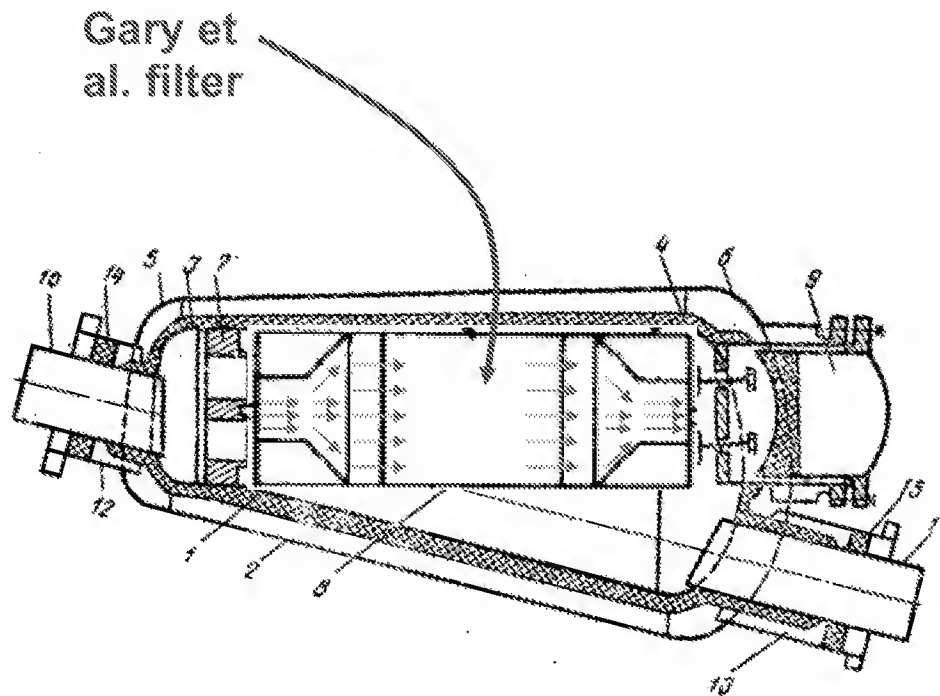
Rather, Gary et al. discloses a purification zone for purifying liquid helium comprising, in flow order, a first filter 25, a purification cartridge 24, and a second filter 25' (col. 6, Ins. 27-32) wherein vacuum insulation is recommended (col. 6, In. 47). Because Figure 2 illustrates a small cylindrical shape that flares outwardly to meet the sides of a large cylindrical shape, one of ordinary skill would likely conclude that the first filter 25 has open ends so that the liquid helium may flow through and that it is enclosed by a vacuum insulated pipe. Such a one would also likely conclude that the solid lines of the small cylindrical shape and the flared portion indicate closed-off peripheral side walls. If this were not so, it would result in a flow dead spot of no particular utility. Such a one would similarly conclude that the same is true for the second filter 25' in the opposite orientation. Based upon the above likely conclusions of the skilled artisan, and for the convenience of the Examiner, Applicants have annotated a portion of Figure 2 of Gary et al. by inserting arrows indicating the flow of liquid and identifying the porous walls of filters 25, 25'.



As seen above, Gary et al. does not disclose at least one duct formed in a filtration member that extends along a flow axis between an open end and a closed-off end. Rather, Gary et al. instead discloses at least one duct formed in a filtration member that extends along a flow axis between two open ends.

Thus, because Gary et al. fails to disclose the limitations of the claimed subject matter as asserted by the Examiner and the Examiner has not pointed with particularity where/how Lozhkin et al. supplies the missing limitations, the rejection should be withdrawn.

With respect to reason two, modification of the Gary et al. disclosure with the branch of Lozhkin et al. would not have resulted in the claimed subject matter. If the filter of Figure 2 would have been inserted in the branch of Lozhkin et al., it would not have resulted in the downstream portion of the liquid flow pipe emerging opposite at least one region of a porous wall at least partially defining a duct. Rather, as seen below, if the filter of Figure 2 was inserted in the Lozhkin et al. branch, the downstream portion of the liquid flow pipe would have emerged opposite a closed-off peripheral side wall of the filter.



Thus, because modification of the Gary et al. disclosure with the branch of Lozhkin et al. would not have resulted in the claimed subject matter, the rejection should be withdrawn.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,913,893 (Gary et al.) in view of the original patent figure and Derwent Abstract of Russian Patent SU 403926A (Lozhkin et al.). Applicants respectfully traverse for the reasons above with regard to claims 10 and 12-18 and additionally because Gary et al. fails to disclose, teach or suggest a first sealing means maintained in compression by the filtration member. If the Examiner disagrees, she is kindly asked to point out where this limitation may be found in Gary et al.

### **CONCLUSION**

Accordingly, it is believed that the present application now stands in condition for allowance. Early notice to this effect is earnestly solicited. Should the Examiner believe a telephone call would expedite the prosecution of the

application, she is invited to call the undersigned attorney at the number listed below.

A Petition for a Three Month Extension of Time has been contemporaneously submitted with this Amendment along with the associated fee. Otherwise, it is believed that no other fee is due at this time. If that belief is incorrect, please debit deposit account number 01-1375. Also, the Commissioner is authorized to credit any overpayment to deposit account number 01-1375.

Respectfully submitted,

Date: **July 29, 2008**

/Christopher J. Cronin/  
Christopher J. Cronin  
Registration No. 46,513

Air Liquide  
2700 Post Oak Blvd., 18<sup>th</sup> Floor  
Houston, Texas 77056  
Phone: 302-286-5525  
Fax: 713-624-8950